

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

RECEIVED
FEB 11 1968

"Proceedings of Magyarjagel oil."

TALEM, Prague, Czechoslovakia. Vol. 35, no. 1, Jan. 1968.

Monthly list of East European Accessions (EMI), IC, Vol. 8, No. 6, Jun 59, Phelus

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"

FREUND, M. H. A. Y.

28

9

Liquefaction of solid fuels and preparation of liquid fuels.

Trans. 5th World Power Conf., Vienna 1956, Div. 2

Part 1) Recent progress in petroleum refining in Japan

Shigenobu Hayashi, Paper no D-4, 16 pp. (Preprint) of

Conf. 19, 12811. Use of sulfite liquor as a fuel. L. v.

Lüdersberg (Ver. Zellstoff- u. Papierchem. u. Ing., Ammer-

land near Munich, Ger.) Paper SS-D-2, 14 pp. (German Preprint).--Sulfite liquor coined to 5% total solids can be used as fuel. The ash content of the coke obtained amounts to 1% of the total solids, varying with the type of lignite. Recent trends in oil refining techniques.

2) Recent progress in coal liquefaction

Yoshio Kondo, Paper no D-5, 16 pp. (Preprint) of

Conf. 19, 12812. Coal liquefaction by partial hydro-

genation over WS to hydrocarbons with the same carbon structure

as CO₂. Temps. about 133°. Lower than those of S₂ production. Aldehydes can be used for the conversion of hydrocarbons with double bonds of carbon to the point of not having a Me group in the side chain. It is also found that the suitable for partial hydrogenation of non-volatile hydrocarbons are aldehydes for selection of hydrocarbons.

3) Recent progress in the preparation of liquid fuels from lignite

Yoshio Kondo, Paper no D-6, 16 pp. (Preprint) of

Conf. 19, 12813. Preparation of liquid fuels from

Hayashi, Shigeru - Lasuberg, J.V.

Petroleum refining in the German Republic. Dietrich V.

Eynatten. Paper 207 D/6, 13 pp. (in German) [reprint]

Coal hydrogenation plants are now used to make gasoline

from petroleum. Hydrogenation of high espel oil content

crude oils and tars at intermediate pressures

is also being developed. The use of catalysts

of various kinds and sizes is described. The

general principle of operation is explained.

Hydrogenation of shale oil is also described.

Hydrogenation at low pressure, low-temp. produces

lighter products such as gasoline, kerosene,

etc., which can be refined or sold directly.

Heavier products, fuel oils and motor fuels from Naphtha, co-

ke grade oil. Michael Freund and Andreas Vanausdringa

Chemical Institute, University of Regensburg, West Germany.

Paper 221 D/8, 10 pp. (in German) [reprint]

From this crude oil can be used satisfactorily if it is heated and

then cooled in the hydrotreating oil. The viscosity of the

oil is reduced because the oil is heated and then

cooled. Use of the viscous fuel oils or high viscosity hydro-

tar usually little difficulty and no hydrogenation is required.

Bogdan A. Karpowicz

FREUND, M.

14. A microviscosimeter. M. Freund, L. V. J. m.s.
Magyar Kémikai Lapja Vol. 14, 1958 No. 1 pp
11-18, 9 figs., 10 tabs.

The new microviscosimeter constructed on the Ostwald principle was found suitable for the examination of very small liquid samples (1-3 ml) with an error not exceeding 1%. The instrument consists of two legs - a tube of 16 mm inside diameter and 100 mm length, the other being the measuring capillary tube, the size of the latter depends on the viscosity of the liquid to be investigated and the device is provided with two capillary tubes of different dimensions (from 0.95 to 0.5 mm inner diameter) which should always be kept ready for measurements. The temperature constancy is ensured by the use of a thermostatic bath. One of the modified Ostwald viscosimeters is inserted into the capillary tube and the liquid sample is sucked into the capillary tube with the help of an aspirator until its upper edge reaches the top of the capillary tube. The liquid sample is then allowed to drop to reach the most stable position in the measuring zone (the distance between the top of the capillary tube and the bottom of the measuring zone is measured by the aid of a micrometer). The value of the time of fall of the liquid drop over the length of the liquid film is measured. The figure shows two identical but reverse times of fall measured on the capillary tube and the time of fall from surface tension at the same height. The time of fall travels in a straight line through the errors due to viscosity.

Freund, M., Vaines, E.

disturb the measurements. Even the Couette correction may be omitted by choosing the proper experimental conditions. Errors due to turbulent flow cannot occur since the value of the critical velocity is considerably higher than the velocities that can occur in this microviscosimeter. The theoretical and practical value of the apparatus was proved by measurements carried out on different commercial materials and products.

2/2

1098

M

FRUEND, M. VAJTA, L.

Recent achievements in the crude-oil processing industry
at the 4th World Petroleum Congress in Rome. (To be contd)
P. 132 MAGYAR KEMIKUSOK LAPJA Budapest, Vol. 11, no. 5,
May 1956

SOURCE: East European Accessions List (SEAL) Library of Congress
Vol. 5, no. 8, August 1956

FREUND, M.

4th World Petroleum Congress held in Rome. p.7.

MUSZAKI ELET. (Muszaki es Termeszettudomanyos Egyesulet Szovetsege) Budapest.
Vol 11, no. 6, Mar 1956.

SOURCE: EEAL, Vol 5, no. 7, July 1956.

The cover of the document

Aging tests of motor lubricating oils. M. Freudenthal, St. Pölitz (Hung., Nat. Gas Research Inst., Budapest). Die Technik, 41, 1955 (1956). Testing methods for the determination of the change of lubricating properties in time and in service, influence of additives to oils on their behavior and of the content of S in the oil are discussed at length.

M. Hartenbach

Handwritten signature

FREYND, Mikhay, akademik [Freund, Mihaly]

Institute of Petroleum and Natural Gas in Veszprem. Priroda 45 no.9:
71-73 S '56.
(Veszprem, Hungary--Petroleum research)

(MIRA 9:10)

FREUND, MIHALY

Az M-120(i.e. szazhusz) kenoolajadalek eloallitasa es motorkiserleti
vizgalata; osszefoglalo jelentes.

Veszprem, Hungary, 1957, 73 p.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 6, June 1959
Uncl.

FREUND, M.; BATHORY, J.; ERDI, M.

Freeing mineral oil products from paraffin by means of extractive crystallization. p. 64. (Magyar Kemikusok Lapja, Vol. 32, No. 2, Feb 1957, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

COUNTRY : Rumania H-23
CATEGORY :
ABS. JOUR. : RZKhim., No. 1959, No. 87961
AUTHOR : Freund, M.
INST. :
TITLE : Work of Hungarian Institute of Petroleum and Gas on Study of Motor Lubricants
ORIG. PUB. : Rev. chim., 1958, 9, No 12, 660-668
ABSTRACT : Results of study of colloidal structure of oils for diesels and spark-ignition motors, depending on addition of various inhibitors and detergents. Experimental data are cited which characterize effect of composition on viscosity and other properties of oil. The effect of sulfur content of fuel on lubricants is also noted.
Ya. Satunovskiy

CARD:

235

... electrochemistry.

S-12

FREUND M

Investigation and improvement of the quality of lubricants
Mihály Freund, Dezső Haág, István Pallay, and Péter
Balogh. Magyar Kém. Lapja 13, 373-5(1958); cf. C.A. 50
134187.—The S-570-X-4 additive (manufd. in the U.S.) was
compared in engine tests with 8 Hungarian additives.
Generally, lubricants refined with H_2SO_4 were superior in per-
formance to those refined with solvents. The effect of the
S content of diesel oil on cylinder wear and deposit forma-
tion was studied. By increasing the amt. of certain addi-
tives, diesel oils contg. 0.3-0.9% S could be used success-
fully.

B. M. Fabuss

5

HUNGARY/Physical Chemistry. Surface Phenomena. Adsorption.
Chromatography. Ion Exchange.

D

Abs Jour: Ref Zhur-Khim., No 5, 1959, 14848.

Author : I. Freund M., Benedek P., Laszlo A., Szepesy L.
II. Benedek P., Szepesy L.

Inst :

Title : Continuous Gas Chromatography.
I. Pure Acetylene Recovery from the End Gas of the
Partial Oxidation of Methane.
II. Investigation of the Dynamic Adsorption on Fixed
and Moving Carbon Beds.

Orig Pub: Acta chim. acad. scient. hung., 1958, 14, No 1-2,
3-18, 19-29.

Abstract: I. The possibility of applying continuous gas chromatography for the separation of a gas mixture, obtained

Card : 1/3

42

HUNGARY/Physical Chemistry. Surface Phenomena. Adsorption.
Chromtography. Ion Exchange.

D

Abs Jour: Ref Zhur-Khim., No 5, 1959, 14848.

as a result of partial oxidation of CH_4 , has been investigated. The main fraction containing no C_2H_2 and another fraction consisting of C_2H_2 with a very small admixture of CO_2 , have been obtained on an experimental stand with the application of a pattern gas mixture corresponding in its composition to the end gas of the partial oxidation of CH_4 . The basic parameters indispensable for the planning of production on a commercial scale have been established.

II. The effect of the flow rate, C_2H_2 concentration, presence of CO_2 , and the humidity of activated carbon

Card : 2/3

FREUND, M.; ROMWALTER, A.

Use of sulfur-containing mineral oil coke residue for producing anode masses. In German. p. 433.

ACTA CHIMICA. (Magyar Tudomanyos Akademia) Budapest, Hungary. Vol. 20, no. 1, 1959

Monthly list of East European Assessments (EEAI) LC Vol. 9, no. 2, Feb. 1960
LA. 41

FREUND, Mihaly, akademikus

An account of the study trips organized on the occasion of the 5th
World Congress of Petroleum in New York, 1959. Kem tud kozl MTA
13 no.2;231-244 '60. (EEAI 9:8)
(United States--Petroleum)
(Hungarians in the U.S.)
(World Petroleum Congress, 5th, New York, 1959)

FREUND, Mihaly, r.tag, akademikus

Scientific and industrial development in the field of the Petroleum and Coal Processing Committee of the Hungarian Academy of Sciences during the past ten years; a contribution to the account by the Section's leadership; also, remarks by Gyula Nyul and others. Kem tud kozl MTA 14 no.2:205-212 '60. (EEAI 10:2)

(Hungary--Petroleum) (Hungary--Coal)
(Hungarian Academy of Sciences)

H/006/61/000/007/001/001
D215/D305

AUTHORS: Freund, Mihály; Báthory, Józef and Ország, Imre

TITLE: The growth of particle size of hydrocarbon adducts derived from solid carbamide

PERIODICAL: Magyar kémikusok lapja, no. 7, 1961, 293-300

TEXT: According to technical literature, the formation of adducts from carbamide solutions is a process of "trans-crystallization". Because of lack of knowledge in this domain, the authors studied the forming of adducts only from solid carbamide. In this case trans-crystallization takes place with the help of melting agents and solution promoters, i.e. essentially in solution. It was found that the particle size of the adducts can be varied by the choice of the conditions of the adduct formation. The adduct can be made with good or bad resistance to abrasion. It was also found that each adduct is formed from one carbamide crystal only, they do not "stick" together. The adduct "grows" into the carbamide crystal, covering it with a continuous

Card 1/8

H/006/61/000/007/001/001

D215/D305

The growth of particle size...

layer which can grow thicker, but without altering the original crystal of the carbamide. Formation of adducts is accompanied by a volume increase of about 39%. When the adduct-forming reaction takes place very fast, the adducts will be completely powdered. The particle size of the adduct depends on the rate of formation; therefore, the effects of diluting, wetting, cooling, flotation, basic raw material and the particle size of carbamide on the size of adducts were studied. The laboratory experiments were carried out in a 2000 ml. three-necked glass flask. In the middle opening an electric mixer was mounted, the second opening held a thermometer while the third one was used for introducing materials. Most experiments were carried out at room temperature. The time between the starting of the mixer and the usual starting of adduct formation was called an "induction period". Sieve analysis of the basic carbamides used in the experiments is shown on Fig. 4. The effects of different diluents on the particle size of adducts are shown in Table 1.

(for Fig. 4 and Table 1 see next card)

Card 2/8

The growth of particle size...

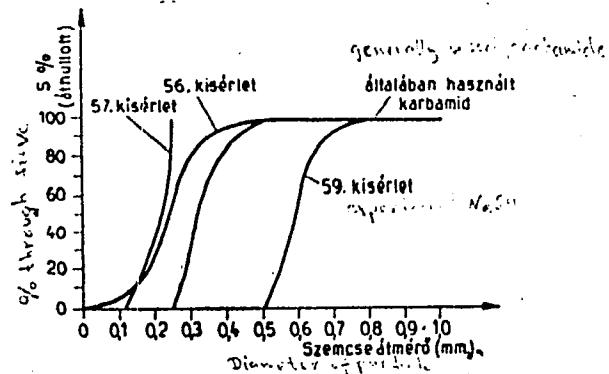


Fig. 4. The screen analysis of the basic carbamides.

specific gravity (f_s). Diluent: petroleum distillates, with varying

Card 3/8

II/006/61/00C/007/001/001

D215/D305

Legend to Table 1.

- 1) Experiment No.;
 - 2) Basic gas-oil, gr;
 - 3) Boiling range of diluent, °C;
 - 4) Diluent hydrocarbon, gr;
 - 5) Flotating soil, percent of basic material and diluent;
 - 6) Carbamide, gr;
 - 7) Initiating adduct, gr;
 - 8) Induction period;
 - 9) reaction time;
 - 10) Normal gas-oil percent in adduct;
 - 11) The mean particle size of the adduct, mm;
 - 12) The mean particle size of the carbamide, mm:
- a) Basic material : Normal gas-oil, boiling point (F.p.);

(for Table 1 see next card)

Card 4/8

H/006/61/000/007/001/001

D215/D305

The growth of particle size...

boiling range. b) Basic material: gas-oil of Nagylenyel, freezing point -15.4°C. Diluent: iso-gas-oil.

Kísérlet száma	Kiindulási gázolaj, g	Hőigény Fp. hőmérséklet, °C.	Hőigény számított hőigény, g	Dörötsföld kiind. anyagának hőigénye, g	Karbamid, g	Bőolt& addukt, g	Indukciós periódus	Reakciós periódus	n-gázolaj, % adduktban	Az addukt átlagos szemcsemérete, mm	A karbamid átlagos szemcsemérete, mm
a)	Kiindulási anyag : n-gázolaj Fp.: 235—337, fa : 0,7782, n _D ²⁰ : 1,4365 Hőigény : különböző forrásokon keresztül általánosan elterjedt										
6.	70	210—260	350	—	230	10	43'	2h45'	19,1	0,41	0,26
8.	60	320—380	500	5	210	—	3'	1h30'	19,8	0,31	0,26
9.	60	70—110	600	10	200	—	1'	2h	17,0	0,28	0,26
10.	60	350—380	500	10	200	1h15'	8'	2h	12,8	0,32	0,26
					után 10						
b)	Kiindulási anyag : nagylenyeli gázolaj Fp.: 223—347°C, fa ¹⁰ : 0,8264, D _p : -15,4°C Hőigény : izo-gázolaj, Fp.: 220—350, fa ¹⁰ : 0,8457, D _p : -64°C										
15.	400	220—350	400	5	440	44	3'	2h	18,4	0,24	0,28
19.	400	220—350	616	5	330	33	5'	1h30'	15,4	0,33	0,26

H/008/61/000/007/001/001
D215/D305

The growth of particle size...

The effects of various wetting agents on the particle size of adduct are shown in Fig. 6. The effects of cooling on the particle size of adducts are shown on Fig. 7.

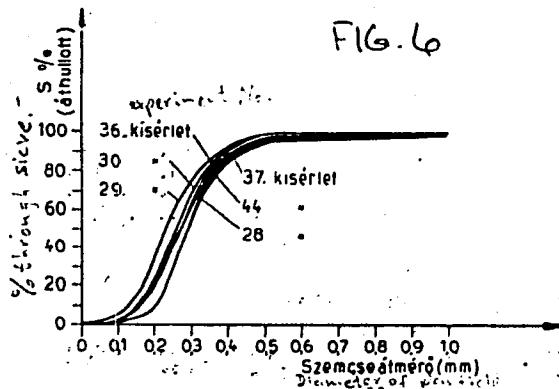
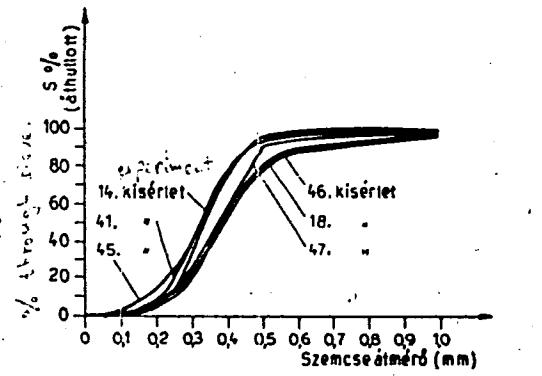


FIG. 6

Card 5/ 8

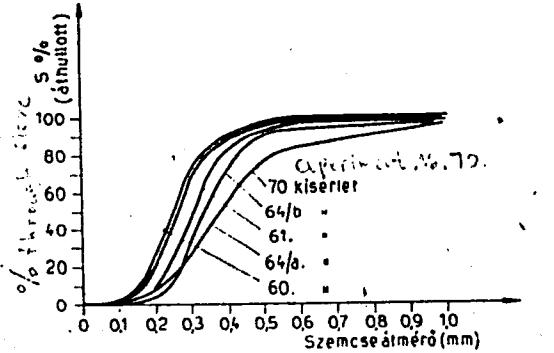


7. ábra. A hűtés hatása az addukt szemcse nagyságára
Fig. 7. The effect of cooling on the
particle size of adduct.

H/006/61/000/007/001/001
D215/D305

The growth of particle size...

The effects of flotation on the particle size of adducts are shown in Fig. 8. The effects of the chemical composition of the basic material - are shown in Table 5.



8. ábra. A derítés hatása az addukt szemcsérekre
Fig. 8. The effect of flotation on the particle size of adducts

Legend to Table 5.

- 1) Experiment No.;
- 2) Petrolate g;
- 3) Flotating soil, percent of petrolate ;
- 4) Diluent iso-gas-oil g;
- 5) Carbamide g;
- 6) Initiating adduct, percent of carbamide;
- 7) Starting temp. °C;
- 8) Final temp. °C;
- 9) Induction period;
- 10) Reaction time;
- 11) Normal cerezin, percent of adduct;
- 12) The mean particle size of adducts, mm;
- 13) The mean particle size of carbamide mm.
- 14) Mark 'S' petrolate without S_2

Card 6/8

H/006/61/000/007/001/001

D215/D305

The growth of particle size...

solvent. 15) Mark 'B' petrolate without solvent.

5. táblázat
Table 5.

A kísérlet száma	Petrolatum, g	Dericősföld, s% petrolatum	Higro i-gázolaj, g	Karbamid, g	Beoltó addukt, s% karbamidra	Indulási hőfok, C°	Véghőfok, C°	Indukciós periódus	Reakció idő	n-corezin, s% az adduktban	Az addukt átlagos szemcsenagyiséga, mm	A karbamid átlagos szemcsenagyiséga, mm
64a	B 380	40	1520	760	10	55	40	21'	2h	12,3	0,29	0,26
64b	Sz 380	50	1440	720	10	55	40	1h20'	3h35'	13	0,38	0,26
70.	B 23	10	315	126	10	50	40	7'	2h	14,5	0,41	0,26
71.	Sz 23	10	315	126	10	50	40	10'	2h	19,6	Por	0,26

"Sz" jelű oldószermentes petrolátum η_{sp}^0 : 0,8534, n_D^{20} : 1,4760, Dp.: 62 C°
 "B" jelű oldószermentes petrolátum η_{sp}^0 : 0,8510, n_D^{20} : 1,4730, Dp.: 54 C°

Finally the effects on the size of adducts of the crystal size of carbamide are shown in Fig. 9.

Card 7/8

H/006/61/000/007/001/001
D215/D305

The growth of particle size...

There are 9 figures, 6 tables and 31 references: 19 Soviet-bloc and 12 non-Soviet-bloc. The references to the four most recent English-language publications read as follows: A.E. Smith, Acta Cryst. 5, 224, (1952); T.H. Rogers, J.S. Brown etc. Petr. Ref: 36: 5, 217-220 (1957); L.C. Fetterly, Ph.D. Thesis, Univ. of Washington (1950); P.H. Calderbank, Nikolov, N.S. J.Physic Chem. 60 1-6 (1956).

ASSOCIATION: Magyar aszfolyalaj és földgáz kísérleti intézet, Veszprém - Budapest (Hungarian Petroleum and Natural Gas Experimental Institute, Veszprem-Budapest)

SUBMITTED: September 9, 1961

Card 8/8

FREUND, Mihaly, akademikus (Budapest)

Task of the conference on coal chemistry. Kem tud kozl MTA 16 no.1:
1-2 '61.

1. Magyar Aszanyolaj es Foldgaz Kiserleti Intezet, Budapest-Veszprem.

(Coal) (Hungarian Academy of Sciences)

KORANYI, Gyorgy, dr.; GYULAY, Zoltan, egyetemi tanar; DIOSZEGHY, Daniel, 'egyetemi tanar; WAHLNER, Aladar, fomernok; VAMOS, Endre, kandidatus; NYUL, Gyula, kandidatus; FREUND, Mihaly, dr., akademikus; SZADECZKY KARDOSS, Elemer, akademikus; TAKACS, Pal, dr., kandidatus; SCHLATTNER, Jeno, kandidatus; HARDY, Gyula, a kemiali tudomanyok kandidatusa

Report on the 1959-60 work of the Committee on Petroleum and Coal Processing, Hungarian Academy of Sciences. Kem tud kozl MTA 16 no.3: 349-359 '61.

FREUND,Mihaly; BATHORY,Jozsef; ORSZAG,Imre

Grain size increase of hydrocarbon adducts originated from
solid carbamida. Magy kem lap 16 no.7:293-300 JI '61

1. Magyar Asvanyolaj es Foldgaz Kiserleti Intezet, Veszprem-Budapest.

FREUND, Mihaly, prof., dr., ing.; (Dudapest IX., Papay Istvan u. 10)

Preface. Acta chimica Hung 31 no.1-3:1-8. '62.

1. Editorial board member, "Acta chimica Academiae Scientiarum Hungaricae," und Ungarisches Erdöl und Erdgas Forschungs-institut, Veszprem-Budapest.

FREUND, Mihaly, prof., dr., ing. (Budapest IX, Papay Istvan u.10);
MARKO, Laszlo, dr., ing. (Budapest IX, Papay Istvan u.10);
LAKI, Janos, dipl.ing. (Budapest IX, Papay Istvan u.10)

Applications of olefins from the mineral oil industry in
oxosynthesis. Acta chimica Hung 31 no.1/3:77-84 '62.

1. Ungarisches Erdol und Erdgas Forschungsinstitut, Veszprem-
Budapest. 2. Editorial Board member "Acta chimica Academias Scien-
tiarum Hungaricae" (for Freund).

FREUND, Mihaly, dr., Kossuth-díjas akademikus

A well-educated research group has developed in the Hungarian Research Institute of Mineral Oil and Natural Gas. Ujít lap 15 no.8:10 25 Ap '63.

1. Magyar Ásványolaj és Földgazkísérleti Intézet.

FREUND, Mihaly, dr.

Hungarian research on octave number determination has started.
Musz elet 18 no.15:15 18 Jl '63.

FREUND, Mihaly, akademikus

An account of the Vienna Conference on Petroleum. Kem.
tud kozl MTA 19 no.1:105-106 '63.

1. Magyar Ásvanyolaj és Foldgaz Kísérleti Intézet,
Budapest-Veszprém; "A Magyar Tudományos Akadémia Kémiai
Tudományok Osztályának Közlemenyei" szerkesztő bizottsági
tagja.

FREUND, Mihaly, akademikus

An account of the Karlsruhe session arranged by the
German Society of the Science of Mineral Oils and Coal
Chemistry. Kem tud kozl MTA 19 no.2:253-255 '63.

1. Magyar Asvanyolaj es Foldgaz Kiserleti Intezet,
Budapest-Veszprem; "A Magyar Tudomanyos Akademia Kemial
Tudomanyok Osztalyanak Kozlemenyei" szerkeszto bizottsagi
tagja.

FREUND, Mihaly, dr.

Hungarian research on determining the road octane number has just started. Magy kem lap 18 no.4: '67 Ap '63.

1. Magyar Aszanyolaj es Foldgaz Kiserleti Intezet.

FREUND, Mihaly, akademikus

An account of my work in the Cairo Institute of the National Research Centre. Kem tud kozi MTA 20 no.2:268-272 '63.

1. Magyar Aszanyolaj es Foldgaz Kiserleti Intezet, Budapest-Veszprem; "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" szerkeszto bizottsagi tagja.

FREUND, Mihaly, akademikus; VAJTA, Laszlo, a kemial tudomanyok doktora;
GRAF, Laszlo, a kemial tudomanyok kandidatusa; SZEPESY, Laszlo,
a kemial tudomanyok kandidatusa

Natural gas deposits of Hungary and their utilization from
the point of view of petroleum chemistry. Kem tud kozl MTA
21 no. 1:19-31 '64.

1. Hungarian Mineral Oil and Natural Gas Experimental
Institute, Budapest-Veszprem, and National Petroleum and
Gas Industry Trust, Budapest. 2. Editorial board member,
"A Magyar Tudomanyos Akademia Kemial Tudomanyok Osztalyanak
Kozlemenyei" (for Freund).

FREUND, Mihaly, akademikus

Preparation of unsaturated hydrocarbons. Kem tud kozl MTA 21
no.2:145-153 '64.

1. Chairman, Committee of Petroleum, Coal and Gas Technology,
Hungarian Academy of Sciences, Budapest.

FREUND, Mihaly, akademikus

New methods for manufacturing olefins. Kem tud kozl MTA 21
no.2:160-170 '64.

1. Hungarian Mineral Oil and Natural Gas Experimental Institute,
Budapest-Veszprem.

FREUND, Mihaly, akademikus

Development of the petroleum refining industry; presidential opening address. Kem tud kozl MIA 22 no.2:199 '64.

1. Editorial board member, "A Magyar Tudomanyos Akademia Kemial Tudomanyok Osztalyanak Kozlemenyei".

ERDEY-GRUZ, Tibor, akademikus; BRUCKNER, Gyozo, akademikus; VARGHA, Lazlo; KORACH, Mor, akademikus; FREUND, Mihaly, akademikus; FODOR, Gabor, akademikus; GERECS, Arpad, akademikus; SCHAY, Geza, akademikus; BITE, Pal, kandidatus; BOGNAR, Rezso, akademikus; FARKAS, Lorand, kandidatus

An account of the work of the Section of Chemical Sciences, Hungarian Academy of Sciences. Kem tud kozl MTA 22 no.2:109-152 '64.

1. Secretary, Section of Chemical Sciences, Hungarian Academy of Sciences, and Editor, "A Magyar Tudomanyos Akademia Kemial Tudomanyok Osztalyanak Kozlemenyei", Budapest (for Erdey-Gruz). 2. Editorial board member, "A Magyar Tudomanyos Akademia Kemial Tudomanyok Osztalyanak Kozlemenyei" (for Bruckner, Korach, Freund, Fodor, Gerecs, Schay and Bognar). 3. Corresponding member, Hungarian Academy of Sciences, and Editorial board member, "A Magyar Tudomanyos Akademia Kemial Tudomanyok Osztalyanak Kozlemenyei" (for Varga).

FREUND, Mihaly, akademikus

An account of the 6th Petroleum World Congress held in Frankfurt am Main. Kem tud kozl MTA 22 no.2:285-287 '64.

1. Hungarian Mineral Oil and Natural Gas Experimental Institute, Budapest-Veszprem, and Editorial board member, "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei".

L 63900-65 EWT(m)/EPP(c)/T DJ
ACCESSION NR: AT5022533

HU/2502/64/042/002/0173/0180

33

B+1

AUTHOR: Bencze, Peter (Veszprem); Khattab, Samir Ahmed (Doctor) (Cairo); Freund, Mihaly (Professor, Doctor) (Budapest)

TITLE: Dialkylphenoldithiophosphate lubricating oil additives

SOURCE: Academiae scientiarum hungaricae. Acta chimica, v. 42, no. 2, 1964, 173-180

TOPIC TAGS: lubricating oil, detergent additive, phosphate, alkylation

Abstract: [English article; authors' English summary] The preparation of a dithiophosphate type detergent lubricating oil additive was discussed in detail and the preparative factors influencing its properties were investigated. The conditions necessary to improve and achieve its thermal stability were established. The color of the additive was greatly improved by using ZnCl₂ and Zn powder catalysts in the alkylation step instead of AlCl₃. The activity of these catalysts was compared. Diesel engine testing results of the detergent additive prepared from a ZnCl₂ alkylate and from an AlCl₃ alkylate were given and compared. Orig. art. has 2 figures and 5 tables.

ASSOCIATION: Hungarian Oil and Gas Research Institute, Veszprem, Budapest and Petfurdo; Khattab--University, Cairo
Card 1/2

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

L 63900-65

ACCESSION NR: AT5022533

SUBMITTED: 12May64

ENCL: 00

SUB CODE: FP, OC

NO REF Sov: 000

OTHER: 007

JPRS

LLC
Card 2/2

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"

FREUND, Mihaly; ZALAI, Andras; GODE, Istvan; BENCZE, Laszlo

Determination of highway octane numbers. Magy kem lap 20
no.3:113-118 Mr '65.

l. Hungarian Mineral Oil and Natural Gas Experimental
Institute.

L 63900-65 EHT(m)/EPF(c)/T DJ
ACCESSION NR: AT5022533

HU/2502/64/042/002/0173/0180

33

13+1

AUTHOR: Bencze, Peter (Veszprem); Khattab, Samir Ahmed (Doctor)(Cairo); Freund, Mihaly (Professor, Doctor)(Budapest)

TITLE: Dialkylphenoldithiophosphate lubricating oil additives

SOURCE: Academiae scientiarum hungaricae. Acta chimica, v. 42, no. 2, 1964, 173-180

TOPIC TAGS: lubricating oil, detergent additive, phosphate, alkylation

Abstract: [English article; authors' English summary] The preparation of a dithiophosphate-type detergent lubricating oil additive was discussed in detail and the preparative factors influencing its properties were investigated. The conditions necessary to improve and achieve its thermal stability were established. The color of the additive was greatly improved by using ZnCl₂ and Zn powder catalysts in the alkylation step instead of AlCl₃. The activity of these catalysts was compared. Diesel engine testing results of the detergent additive prepared from a ZnCl₂ alkylate and from an AlCl₃ alkylate were given and compared. Orig. art. has 2 figures and 5 tables.

ASSOCIATION: Hungarian Oil and Gas Research Institute, Veszprem, Budapest and Petfurdo; Khattab--University, Cairo, Egypt Arabic version
Card 1/2

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

L 63900-65

ACCESSION NR: AT5022533

SUBMITTED: 12May64

ENCL: 00

SUB CODE: FP, OC

NO REF Sov: 000

OTHER: 007

JPRS

llc
Card 2/2

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"

FREUND, P.

Studies of some characteristics of platings obtained by electrometallization.

P. 465(Academia Republicii Populare Romine. Institutul de Mecanica Aplicata. STUDII SI CERCETARI DE MECANICA APPLICATA. Vol. 7, no. 2, Apr./June 1956. Bucuresti, Romania)

Monthly Index of East European Accessions (EFAI) LC. Vol. 7, no. 2,
February 1958

FREUD, P.

Experimental studies on some antifriction materials for substitution for roller bearings.

p. 773 (Academia Republicii Populare Române. Institutul de Mecanica Aplicata. Studii Si Cercetari De Mecanica Aplicata. Vol. 7, no. 3, July/Sept. 1956. Bucuresti, Romania)

Monthly Index of East European Accessions (EEAJ) I.C. Vol. 7, no. 2,
February 1958

FREUND, P., ZELINGHER, N.

A test stand for study of the resistance of shaft journals to wear and tear
in nonpermanent conditions. p. 1275

Academie Republicii Populare Romane. Institutul de Mecanica Aplicata. STUDII
SI CERCETARI DE MECANICA APLICATA. Bucuresti, Romania. Vol. 8, No. 4, 1957

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 8, Aug. 1959
Uncl.

FREUND, P.

II

RUMINI/Chemical Technology. Chemical Products and Their
Application. Corrosion. Corrosion Control.

Abs Jour: Ref Zhur-Khim., No 8, 1959, 27822.

Author : Marcu, V., Zelingher, N., and Freund, P.

Inst :

Title : Corrosion Protection by the Applications of Sprayed
Metal Coatings.

Orig Pub: Studii si Cercetari Mec Apl Acad RPR, 2, No 2,
457-470 (1958) (in Rumanian with French and Russian
summaries)

Abstract: The results from corrosion tests on samples coated
with sprayed steel coatings (I) and on nonmetallized
samples (II) are described. It has been established
that the resistance of I under conditions of electro-
chemical corrosion is satisfactory; II show sufficient

Card : 1/2

145

P/045/60/019/02/03/013
B018/B102

AUTHOR: Freund, P. G. Oliver

TITLE: Wave Equations Invariant Under Discontinuous Groups and the Problem of Nuclear Forces

PERIODICAL: Acta Physica Polonica, 1960, Vol. 19, No. 2, pp. 139-148

TEXT: The author, now at the Institut fuer Theoretische Physik der Universitaet Wien (Institute of Theoretical Physics of Vienna University), investigated the wave equations of quantum physics which are determined by invariance conditions with respect to continuous groups. This continuity, however, in connection with the wave equations seems to contradict the fundamental conception of quantum physics according to which the structure of the universe is discontinuous. Thus, the author suggests the idea that physical space is but a representation space of a group. This was concluded from the unification of two interpretations of the space and time coordinates in wave equations. The meaning of this conception of physical space is explained by means of an example. A two-dimensional theory of nuclear forces invariant only under a discontinuous rotation group is developed. From this

Card 1/2

✓B

Wave Equations Invariant Under Discontinuous Groups and the Problem of Nuclear Forces P/045/60/019/02/03/013
B018/B102

it follows that the potential of nuclear forces and, thus, the nuclear forces themselves are periodic functions of the angle of rotation. This fact could be verified experimentally. Three- and four-dimensional generalizations lead to the non-euclideanity of space and space-time and may thus serve as physical supports to Einstein's theory of gravitation. It is shown that theories invariant under discontinuous groups do not contain conservation laws. In conclusion, the author thanks Professor J. Rayski for a critical remark and Professor B. A. Rosenfeld for an interesting correspondence. There are 2 figures and 11 non-Soviet references.

ASSOCIATION: Chair of Physics of the Facultatea de Matematica si Fizica Timisoara
(Chair of Physics of the Timisoara Physics and Mathematics Department)

SUBMITTED: June 8, 1959

✓ B

Card 2/2

RUMANIA

ZAMFIR, Gh., Conf; FREUND, S., Ing.

Institute of Hygiene and Public Health, Iasi
(Institutul de igiena si sanatate publica, Iasi)
- (for all)

Bucharest, Igiena, No 5, 1963, pp 447-457

"Contributions to the Mathematical Determination
of Sanitation Zones around Industrial Sources of
Air Pollution"

(2)

GHIMICESCU, Camelia; GHIMICESCU, Gh.; FREND, S.

Study of the correlation between different wine components and the establishment of certain enological indexes valid for its authenticity. Studia Univ B-S S Chem 8 no.1:347-358 '63

Interpretation and calculation of the extent to which different manipulations can be operated on a wine. Ibid. 8:359-368

1. Institute of Medicine, Iasi.

POPA, S., dr.; POPA, Suzana, dr.; BERCOVICI, C., dr.; BESLEAGA, Virginia, dr.; IOSUB, C., dr.; FREUND, S., dr.

Contribution to the problem of the duration of the germ carrier state in dysentery and its importance in epidemiology. II. Carrier state in so-called healthy persons. Microbiologia (Bucur) 9 no.2: 145-150 Mr-Ap '64.

GHIMICESCU, Gh.; GHIMICESCU, Camelia; FREUND, S.

Study of the correlation between ashes and alkalinity of
ash in view of establishing oenological index. Anal St
Jassy I 10 no.1:85-89 '64.

1. Laboratory of General Chemistry, Institute of Medicine and
Pharmacy, Iasi.

GHIMICESCU, Gh.; GHIMICESCU, Camelia; FREUND, S.: COTEA, V.

Correlation between the alcoholic degree and the extract and the availability of the relation g total alcohol o/o g reduced extract o/o as an oenological index. Anal St Jassy I 10 no.1:91-96 '64.

1. Laboratory of General Chemistry, Institute of Medicine and Pharmacy, Iasi.

RUMANIA

APPROVED FOR RELEASE: 06/13/2000

576.85.097.22:615.779.93

CIA-RDP86-00513R000413620015-9"

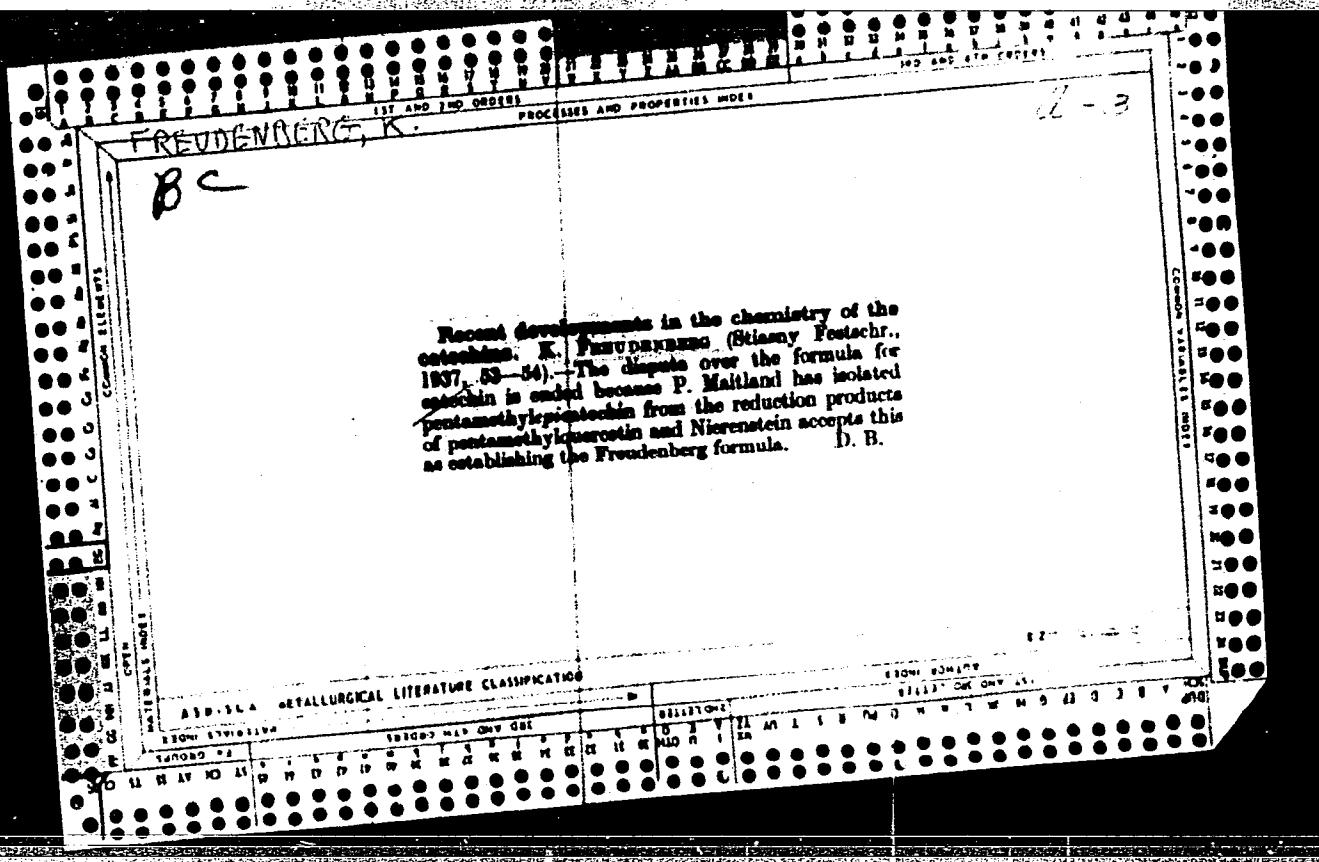
FREUND, S. S., Eng, and POPOVICI, Maria, Dr. Work performed at the Institute of Hygiene (Institutul de Igiena), Iasi.

"A Simple Quantitative Method for Expressing the Sensitivity of Germs to Antibiotics."

Bucharest, Microbiologia, Parazitologia, Epidemiologia, Vol 11, No 6, Nov-Dec 66, pp 527-530.

Abstract: The authors propose a method for calculating a simple numerical index reflecting the sensitivity of a given strain to a particular antibiotic. The calculation involves a weighted averaging of sensitivity data, with arbitrary numerical values assigned to the occurrence of "highly sensitive" through "resistant" observations. Use of the index should simplify evaluation of sensitivity changes in time and facilitate comparisons of the value of different antibiotics.

Includes one figure and 2 tables. -- Manuscript submitted on 20 April 1966.



YUGOSLAVIA/High Molecular Chemistry.

I

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 22039

Author : Freudenberg, Karl

Inst

Title : The structure of Lignin.

Orig Pub : Croat. chem. acta, 1957, 29, No 3-4, 139-
194

Abstract : By fermentative dehydrogenation of coniferyl alcohol (I), a substance similar to coniferenlignin was obtained. The author considers that in the beginning, intermediate bimolecular products are formed such as dehydroconiferyl alcohol, an analogous aldehyde of I, DL-"pinozinol", and guaiacyl-beta-coniferyl ether (II). By means of dehy-

Card : 1/3

YUGOSLAVIA/High Molecular Chemistry.

I

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 22039

lar; however, DHP contains more oxygen, possibly because of lactonic groups. -- N. Len-shina

Card : 3/3

HORGOS, Gyula, dr., mussaki tudomanyok kandidatusa (Budapest); GILLEMET,
Laszlo, dr., ketszeres Kossuth-dijas egyetemi tanar; FREUDENTHALL,
A. M., dr. (USA); KRAINER, E., dr. (Austria); MUCSI, Endre;
DEVENYI, Miklos

An account of the 2d Congress of Testing of Materials. Ujít lap 13
no.15:8 Ag '61.

1. Koho- es Gépipari miniszterhelyettes (for Horgos) 2. Columbia
University, New York, USA (for Freudenthal) 3. Általános Géptervező
Iroda (for Mucsi) 4. Kemenyfemipari Vallalat (for Devenyi)

(Testing)

DOBIAK, B.; SPURNY, J.; FREUDLOVA, E.

Study of the mineral-solution interface potential for purposes of flotation research. III. Study of the behavior of an anion and cation collector at the interface between α -corundum and collector solution. In German. Coll.Cz.Chem. 24 no.11:3668-3677 N '59. (MEAI 9:5)

1. Institut fur anorganische Chemie, Abteilung Flotation, Tschechoslovakische Akademie der Wissenschaften, Prag und Institut fur Mineralogie, Technische Hochschule fur Chemie, Prag.
(Phase rule and equilibrium) (Flotation) (Anions)
(Cations) (Corundum)

BERCOVICI, C., dr.; BESLEAGA, Virginia, dr.; IUSUB, C., dr.; POPA, S., dr.;
FREUND, S., dr.; OVANESCU, A., dr.; SABAREZI, I., dr.

Contribution to the problem of the germ carrier state in dysentery
and its importance in epidemiology. I. Microbiologia (Bucur) 9 no.2:
137-143 Mr-Ap '64.

1. Lucrare efectuata in Institutul de igiena Republica Populare
Romina Filiala Iasi.

BACZKOWSKA, H.; KAMINSKA, B.; KAMINSKI, J., FREUNDLICH, A.

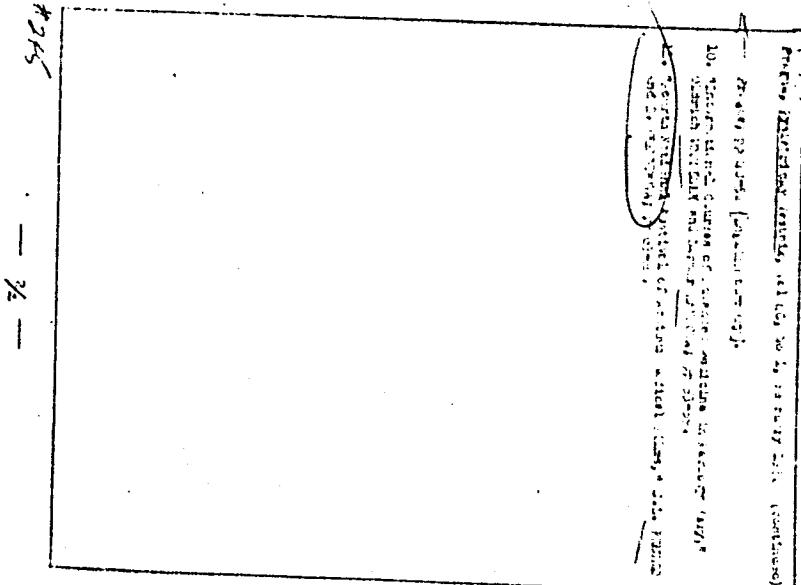
Studies on the value of reciprocal crossbreeding of White American with Meat Sussex as broilers. Rocznik nauk roln zootechn 84 no.3:589-605 '64.

1. Department of Poultry Breeding of the Zootechnical Institute and Department of Feeding of the School of Agriculture, Krakow.

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

FREUNDOVA, D.



APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"

FREUD, I.L.; FREUNDOVA, D. (Praga)

"Rat and mouse - experimental animals for research" by E.Hagemann
and G.Schmidt. Reviewed by I.L.Freund and D.Freundova. Lab. delo
7 no.12:51 D '61. (MIRA 14:11)
(LABORATORY ANIMALS) (HAGEMANN, E.) (SCHMIDT, G.)

4650

— 22 —

154

6

- TRADE, "INTERNATIONAL TRADE," Vol. 40, No. 4, April 62.
(CONTINUED)
11. "Meeting of the Slovak Branch of the Plastic Society, President of the Z. P. Numer Czechoslovak Indian Society, President of the 20 and 21 October 1961," Jiri MANGOVSKY and Rudolf RADCLIFFE pp 122-123.
12. "Speech of A. K. Gaidar, 16 May 1962," Jiri VOLKOVSKY p 126.
13. "International Symposium on the Use of Ultrasonics," RAUBER, p 127.
14. SPORTS, "Awards Festival of Workers' Union Pictures Having Soviet and Non-Soviet Participants," Jiri MANGOVSKY and Jiri PRUDNOVSKY pp 127-128.

WINTER, V.; FREUNDOVA, D.

Use of 5-aminoacridine hydrochloride in fluorescence microscopy with special reference to dermatology. Cesk. derm. 39 no. 4:264-268 Jl '64

1. Laborator pro vyzkum metabolismu a hygieny kuze fakulty vseobecneho lekarstvi KU [Karlovy university] v Praze; vedouci prof. dr. J.Konopik, DrSc.

WINTER, V.; FREUNDOVA, D.

Correlation of histochemical changes in various skin tumors
and in connective tissue. Cesk. derm. 40 no.5:333-337 O '65.

1. Laborator pro vyzkum metabolismu a hygieny kuze fakulty
vseobecneho lekarstvi Karlovy University v Praze (vedouci
prof. dr. J. Konopik, DrSc.).

FREUNTHALLER, P., dr.

On the prevention and early treatment of dyagnathia. Fogorv.
szemle 58 no.2:37-39 F '65

1. A Bocsi Egyetemi Fogaszati Klinika (igazgato: prof. dr.
H. Langer) kozlemenye, (foorvos, az orthodontial osztaly
vezetoje P. Freunthaller, dr.).

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"

FREY, H

"Characteristics of the black lyes derived from the boiling of sulfate cellulose from reeds for the manufacture of paper."

p. 391 (Celuloza Si Hirtie) Vol. 6, no. 11, Nov. 1957
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

FREY, Henryk

Prototype building in Warsaw. Przegl budowl i bud mieszk
33 no.3; 128-135 Mr'61

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"

GOTH, Endre; GOTH, Margit; STADLER, Egon; FREY, Jozsef; MAJSAY, Aglaia

Function of the pituitary - adrenal system in diabetes. II. Relation
of the plasma corticoid level to the degree of blood sugar fluctuation.
Magy. belorv. arch. 10 no.5-6:186-191 Oct-Dec 57.

1. A Budapesti Margit Korhaz Belosztalyanak (foorvos: Goth, Endre) es
a Budapesti VIII Szanto Kovacs u. Rendelointezet Laboratoriumnak
(foorvos: Zimandy Aranka) kozlemenye.

(ADRENAL CORTEX HORMONES, in blood

in diabetes mellitus, relation to blood sugar fluctuation(Hun)

(DIABETES MELLITUS, blood in

adrenal cortex hormone level. relation to blood sugar fluctuation (Hun))

KOVALKOVITS, Istvan, dr.; FREY, Jozsef, dr.

Multiple fractures in marble bone disease. Orv. hetil. 106
no. 3/4:1475-1477 1 Ag'65.

1. Heves megyei Tanacs Korhaza, Eger, Balleseti-szekcemet et
Rontgen Osztaly.

FREY, K.

Methods for building up funds in coal mines for capital investments. Fin. SSSR 17 no.12:57-61 D '56. (MLRA 10:1)

(Coal mines and mining--Finance)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

FREY, L., prof.

Foreign exchange situation of the main capitalist countries.
Vnesh. torg. 42 no. 6-26-31 '62. (MIRA 17:3)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"

YESSIRANOV, D.O., inzh.; KIM, G.N., inzh.; IBRAYEV, T.I., inzh.; FREY, L.I.,
tekhnik

Effect of individual factors on the stability of the roof. Izv. vys.
ucheb. zav.; gor. zhur. 6 no.7:85-86 '63. (MIRA 16:9)

1. Dzhezkuzganskiy gornometallurgicheskiy kombinat.
(Mining engineering)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

ФРНУ, Lazar' Isaevich.

Financing foreign trade Moskva, Vneshtorgzdat, 1935. 415 p.

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"

18G30

FREY, L.

WORLD/Postwar Gold Market 4205.0800 Nov 1947

"The Gold Market after the War," L. Frey, 6 pp

"Vnesh Torg" Vol XVII, No 11

Discussion and tables showing amount of gold mined and amount of gold reserve in various countries of world (except USSR) for selected years from 1938 to 1946. Existence of private and "for the most part illegal" gold market in capitalist countries said to be characteristic of postwar period and explained by high commodity prices in terms of dollars, fixed price of gold in US, Canada, England, and South Africa.

LC

18G30

FREY, Lazar' Isaevich.

Contemporary banking systems of England, U.S.A., and France Moskva, Vneshtorgoizdat,
1953. 187 p. (55-18567)

HG1607.F73

FREI, L. I.

1

Mezhdunarodnyye Raschety i Finansirovaniye vneshney torgovli
Kapitalisticheskikhstran (International Accounts and Financing Foreign Trade of Capitalistic
Countries) Moskva, Vneshtorgizdat, 1954.
337 P.

751

.F8

Internationalization of the economy and its effect on foreign trade, (Internationalization of the economy and its effect on foreign trade in capitalist countries), by I. Shoj. Reprinted in Law Books, (Noue Mizaki), No. 6, March 15, 1956.

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

GRODKO, N.; FREY, I.

State finances of the Republic of India. Min.SSSR 17 no.10:72-82
0 '56. (MIRA 9:11)
(India--Finance)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"

FREY, L., prof.

"Foreign trade of capitalist countries in the first stage of the general capitalist crisis" by I.M.Braslavskii. Reviewed by L. Frei.
Fin. SSSR 19 no. 7:87-90 Jl '58. (MIRA 11:8)
(Commerce)
(Braslavskii, I.M.)

YEMY, Lazar' Isaevich, prof.; LYUBIMOV, N.N., prof., red.; RUDCHENKO, A.M.,
red. izd-va; LEKANOVA, I.S., tekhn. red.

[Present-day banking systems of Great Britain, the United States,
France, and the Federal Republic of Germany] Sovremennoye bankovye
sistemy Anglii, SShA, Frantsii i FRG. Izd.2., perer. i dop. Moskva,
Vneshtorgizdat, 1958. 316 p. (MIRA 11:9)

(Banks and banking)

FREY, L., prof.

New features of the foreign exchange position of the United States. Vnesh.torg. 28 no.12:20-23 '58. (MIRA 12:1)
(United States--Foreign exchange problem)

FREY, L., prof.

Convertibility of West-European currencies. Vnesh. torg. 29
no.3:29-33 '59. (MIRA 12:?)
(Europe, Western--Currency convertibility)

FREY, Lazar' Isayevich, prof.; MEL'NIKOVA, Ye.E., red.izd-va; TYSHKEVICH, Z.V., tekhn.red.

[International clearing and the financing of foreign trade in socialist countries] Mezhdunarodnye raschety i finansirovaniye vneshnei torgovli sotsialisticheskikh stran. Moskva, Vnesh-torgizdat, 1960. 228 p. (MIRA 13:6)
(Commerce) (Communist countries--Foreign economic relations)

FREY, Lazar' Isayevich

[International balance of payments and the financing of the foreign trade of capitalist countries] Mezhdunarodnye raschety i finansirovaniye vneshnei torgovli kapitalisticheskikh stran. Izd.2., perer. i dop. Moskva, Vneshtorgizdat, 1960. 437 p. (MIRA 14:8)
(Balance of payments) (Exchange)

FREY, Lazar' Isayevich, prof.; LYUBIMOV, N.N., prof., red.; MEL'NIKOVA, Ye.E.,
red. izd-va; VASIL'YEVA, G.N., red. izd-va; VOLKOVA, Ye.D., tekhn.
red.

[International clearance and Financing of foreign trade in capitalist
countries] Mezhdunarodnye raschety i finansirovanie vneshnei torgovli
kapitalisticheskikh stran. Izd.3., perer. i dop. Moskva, Vneshtorg-
izdat, 1960. 437 p. (MIRA 14:6)

(Foreign exchange) (Commerce)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

FREY, L. prof.

Monetary situation in capitalist countries in 1959. Vnesh. torg.
30 no.2:42-49 '60. (MIRA 13:2)
(Currency question)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

FREY, L., prof.

Intensification of the struggle among the dollar, pound and West
German mark. Den. i kred. 18 no.10:74-84 0 '60. (MIRA 13:10)
(Foreign exchange problem)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"

FREY, L., prof.

"Gold and the dollar crisis" by R.Triffin. Reviewed by L.Frey.
Den. i kred. 19 no.6:84-86 Je '61. (MIRA 14:6)
(Currency question) (United States—Balance of payments)
(Triffin, R.)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

FREY, L., prof.

Foreign exchange position of capitalist countries. Vnesh. torg.
41 no. 2:12-19 '51.

(MRA 14:2)

(Foreign exchange)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"

YESHPANOV, D.O.; FREY, L.I.

Location of support pillars in the chamber-and-pillar system of mining. Gor. zhur. no.6:28-30 Je '62. (MIRA 15:11)

1. Dzhezkazganskiy rudnik.
(Dzhezkazgan District—Mining engineering)

FREY, L.I., doktor ekon. nauk, prof.; VASIL'YEVA, G.N., red.izd-va; ZINCHENKO, V.S., red.izd-va; PAVLOVSKIY, A.A., tekhn. red.

[Foreign trade problems of capitalist countries] Problemy mezhdunarodnoi torgovli kapitalisticheskikh stran. Moskva, Vneshtorgizdat, 1963. 504 p. (MIRA 17:1)

FREY, L., prof.

Foreign exchange and credit problems of the "Common Market"
countries. Den. i kred. 21 no. 1:74-82 Ja '63. (MIRA 16:2)
(European Economic Community countries--Balance of payment)
(European Economic Community countries--Credit)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9

FREY, L., prof., doktor ekonom. nauk

Foreign exchange situation of capitalist countries. Vnesh.
torg. 43 no.5:25-31 '63. (MIRA 16:6)

(Balance of payments)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620015-9"